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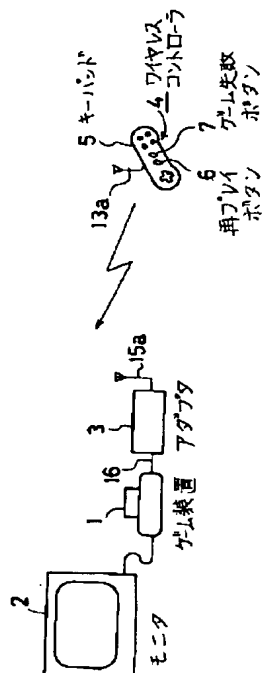
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(54)【考案の名称】 ワイヤレスコントローラ

(57)【要約】

【目的】 ワイヤレスコントローラを備えたテレビゲーム装置において、ゲーム終了時、例えばゲーム中のどの操作が失敗の原因であったかを復習し得るよう、ゲーム中の操作内容を再生し、かつ再プレイの途中からゲームの続行を可能とする手段を提供する。

【構成】 このため、ワイヤレスコントローラ 4 に再プレイボタン 6 とゲーム失敗ボタン 7 とを設け、キーパッド 5 に入力された信号をタイマなどのカウンタ回路 10 及びメモリ 11 により時系列的に記憶させ、ゲーム終了後、その記憶信号を再プレイ制御回路 9 により再生可能に構成した。



1

2

【実用新案登録請求の範囲】

【請求項 1】 ゲーム状態入力手段及びその入力情報の無線送信手段とより成るワイヤレスコントローラ、ならびに前記入力情報の無線受信手段及びこの受信入力情報をゲーム装置を介してモニタ上に画像・音声信号として送出するためのインタフェース回路とより成るアダプタとで構成されたゲーム装置において、前記ゲーム状態入力手段に入力された信号を時系列的に記憶するための記憶手段を備えると共に、ゲーム終了後に、前記記憶した信号を再現し、この再プレイの途中からゲームの続行を可能にするための再プレイ開始手段を備えたことを特徴とするワイヤレスコントローラ。

【図面の簡単な説明】

【図 1】 一実施例のワイヤレスコントローラを備えたゲーム装置の基本構成図

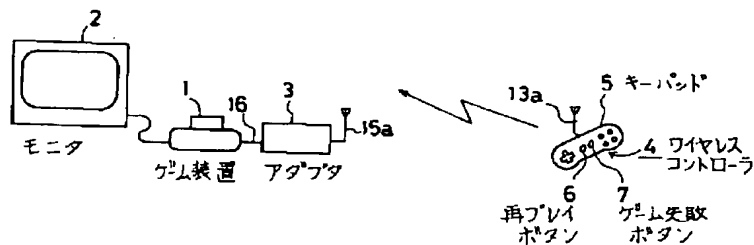
【図 2】 再プレイ機能の回路構成ブロック図の一例

【図 3】 図 2 の他の実施例図

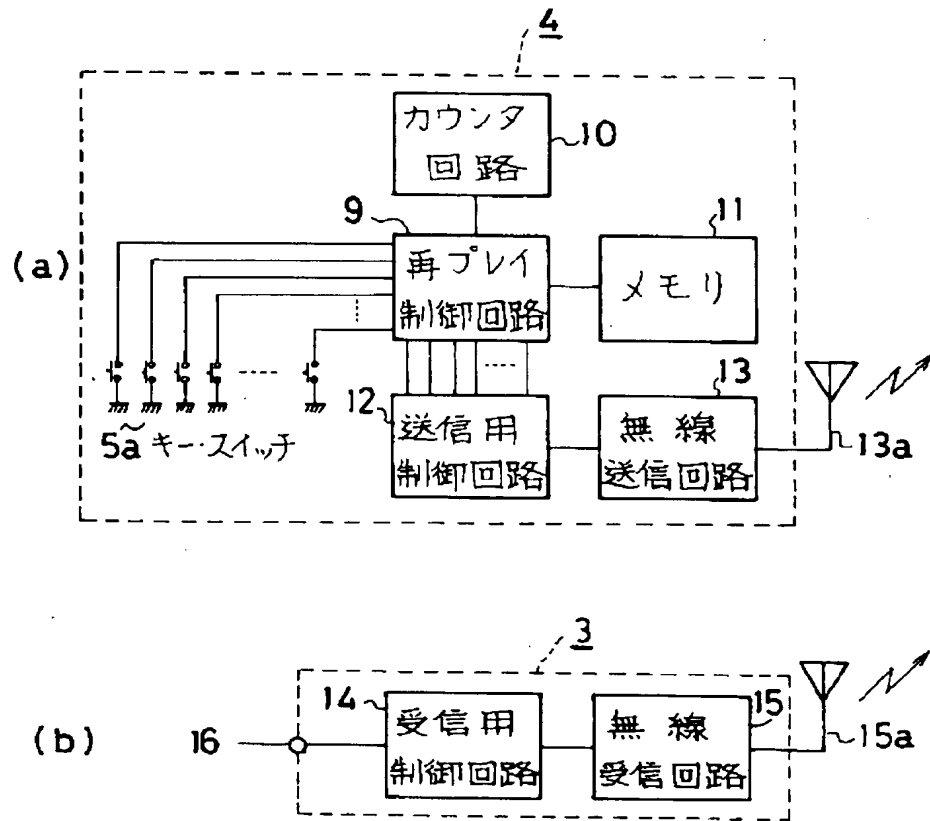
【符号の説明】

- 1 ゲーム装置
- 2 モニタ
- 3, 3A アダプタ
- 4, 4A ワイヤレスコントローラ
- 5 キーパッド
- 6 再プレイボタン
- 7 ゲーム失敗ボタン
- 9 再プレイ制御回路
- 10 カウンタ回路
- 11 メモリ
- 13/15 無線 送信/受信回路

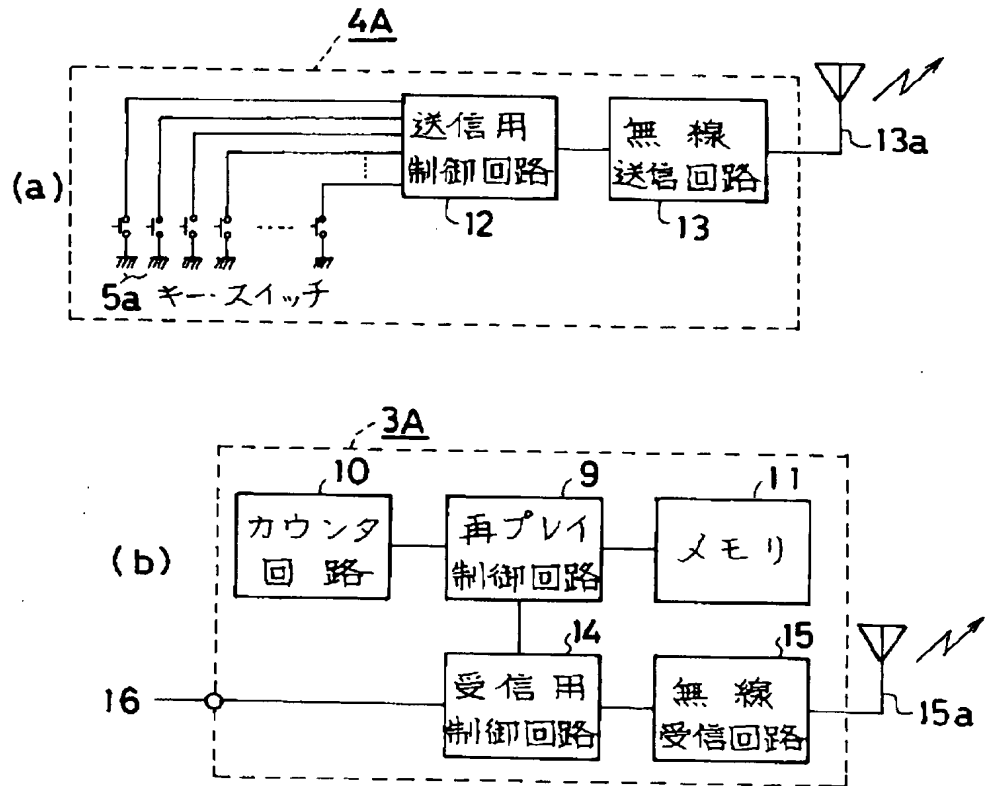
【図 1】



【図2】



【図3】



【考案の詳細な説明】**【0001】****【産業上の利用分野】**

この考案はワイヤレスコントローラ、特にテレビゲーム装置のワイヤレスコントローラに関するものである。

【0002】**【従来の技術】**

近年、家庭用のテレビジョン受像機等をモニタとして利用するいわゆるテレビゲーム装置（あるいはコンピュータゲーム装置、略してファミコン等）が普及している。従来のこの種のゲーム装置のコントローラは有線式のものが一般的であるが、実際にゲーム操作を行う場合、操作者とテレビ等のゲーム用のモニタ画面との距離がケーブル（またはコード）長さにより制約されて見難くなったり、またケーブルが邪魔になり、不使用時の保管の際にも始末が不便である等の煩わしさがあるため、これらを無線によるワイヤレス化する提案が例えば特開昭63-82688号公報及び実開昭62-14527号公報等に開示されている。

【0003】**【考案が解決しようとする課題】**

この種のテレビゲーム装置によりゲームを楽しむ場合、一般的に、幾度かのゲームの失敗を経験することが普通であり、ゲーム終了後、そのゲーム中のどの操作が失敗の原因であったかを復習したい要求を抱くことが少なくない。

しかしながら、例えば、前記引用例装置には、ゲーム終了後にゲーム中の操作内容を再生する機能を有するものはなく、操作者の記憶以外にそれを復習することができなかった。また特に、例えばシューティングゲーム等においては、ゲームに失敗してしまうと初めからゲームをやり直さねばならないことが多く、極めて面倒でもあり、かつ焦燥感を伴い勝ちである。

【0004】

この考案は、以上のような局面にかんがみてなされたもので、ゲーム終了後に、ゲーム中の操作内容を再現し得、かつその再プレーの途中からゲームの続行が可能な機能を有するワイヤレスコントローラの提供を目的としている。

【0005】

【課題を解決するための手段】

このため、この考案においては、ゲーム状態入力手段及びその入力情報の無線送信手段とより成るワイヤレスコントローラ、ならびに前記入力情報の無線受信手段及びこの受信入力情報をゲーム装置を介してモニタ上に画像・音声信号として送出するためのインタフェース回路とより成るアダプタとで構成されたゲーム装置において、前記ゲーム状態入力手段に入力された信号を時系列的に記憶するための記憶手段を備えると共に、ゲーム終了後に、前記記憶した信号を再現し、この再プレイの途中からゲームの続行を可能にするための再プレイ開始手段を備えるよう構成することにより、前記の目的を達成しようとするものである。

【0006】

【作用】

以上のような本考案のワイヤレスコントローラ構成により、ゲーム中の操作内容が時系列的にメモリに保存されているため、その内容を再現してゲーム中の失敗原因等を復習することができ、また、再プレイの途中からゲームを続行することができる。

【0007】

【実施例】

以下に、この考案を実施例に基づいて説明する。図1に、この考案に係るワイヤレスコントローラを備えたゲーム装置の一実施例の基本構成図を示す。

(構成)

1はこの種のテレビゲーム装置、2は、このゲーム装置1から信号が入力されるテレビ受像機等の画像・音声のモニタ、3は、ワイヤレスコントローラ4からのゲーム状態入力情報を無線受信回路（そのアンテナ15aのみを示す）を備えたアダプタである。ワイヤレスコントローラ4は、ゲーム状態入力手段としてのキースイッチなどを備えたキーパッド5を有し、内蔵の無線送信回路（そのアンテナ13aのみを示す）により前記状態入力情報を前記アダプタ3に向けて送信するような一般的基本構成を有する。

【0008】

この実施例の特徴は、前記ワイヤレスコントローラ4に再プレイボタン6及びゲーム失敗ボタン7が設けられており、ゲーム終了後に再プレイボタン6を押すことにより、ゲーム中にキーパッド5で入力された操作キー信号を時系列的にゲーム装置1に送出し、また、ゲーム失敗ボタン7を押すと、ゲーム中に失敗した場所を時系列的に記憶することにより、再プレイの途中、失敗した場所の少し手前よりゲームが続行できるよう構成したことにある。

【0009】

図2(a)、(b)に、この再プレイ機能に関するそれぞれワイヤレスコントローラ4及びアダプタ3の各回路構成ブロック図を示す。

ワイヤレスコントローラ4を示す(a)図において、5aは、キーパッド5の複数のキースイッチ、9は再プレイ制御回路、10はタイマ等の時間カウント回路、11はメモリ、12は送信用制御回路、13は無線送信回路、13aはそのアンテナである。また、アダプタ3を示す(b)図において、14は受信用制御回路、15は無線受信回路、15aはそのアンテナ、16はこのアダプタ3をゲーム装置1へ接続するための制御線を示す。

【0010】

(動作)

次に、この再プレイ装置の動作シーケンスを、(1)ゲーム中、(2)ゲーム再生中の区分に従って説明する。

(1) ゲーム中

1) ワイヤレスコントローラ4の不図示のゲーム開始ボタンが押されると、再プレイ制御回路9はカウンタ回路10に計時開始指令信号を送出し、同時に送信用制御回路12部のゲーム開始を司るポートを一時的にオンする。制御回路9は、複数のポートを有し、キーパッド5上のすべてのボタン(キースイッチ5a)を上記各ポートに対応させてある。また、送信用制御回路12側には、これらポートにそれぞれ対応する各出力ポートが配設されている。

【0011】

2) 前記開始指令信号により、カウンタ回路10は、その時点より計時カウントを開始する。

3) また、再プレイ制御回路9では、ゲーム中、操作したキースイッチ5aのボタンを随時監視しており、時系列的にみて現サンプルのキーパッド5側の複数のポートのオン/オフ状態が、1サンプル前のポートのオン/オフ状態に対して変化した時、カウンタ回路20に要求信号を送出し、カウンタ回路10から返ってきた時間のカウント値を受取り、キーパッド5側複数ポートのオン/オフ状態を記号化(ラベル化)して、ラベルと時間のカウント値とをメモリ11に書き込む。また、ゲームを失敗したときに、ゲーム失敗ボタン7を押すと、その情報もラベルとしてメモリ11に書き込まれる。なお、ゲーム中のときは、キーパッド5側の複数のポートと出力ポートは短絡した状態になっている。

【0012】

(2) ゲーム再生中

1) ワイヤレスコントロール4の再プレイボタン6を押すと、再プレイ制御回路9が、ゲーム開始を司どるポートを一時的にオンすると同時に、カウンタ回路10に計時開始指令信号を送出する。その後、制御回路9では、常にカウンタ回路9に要求信号を送出し、カウンタ回路10から返ってきた時間のカウント値を監視している。

【0013】

2) カウント開始指令信号を受取ったカウンタ回路10では、その時点より計時カウントを開始する。

3) また、再プレイ制御回路9では、メモリ11上の時間カウント値と現在カウント中の時間カウント値とによって、メモリ11上のラベルより送信用制御回路12部の複数ポートのオン/オフ状態を再現するが、時系列的にnサンプル後のラベルに、ゲームに失敗したことを示すものがあれば、送信用制御回路12側の複数ポートのうち、“ポーズ”(ゲームの一時停止)を司どるポートをオンにし、ゲームを一時中断すると同時に入力待ち状態とする。また、カウンタ回路10に、計時カウント停止指令信号を送出する。

【0014】

4) ここで、再プレイボタン6が押されると、前記1)の状態に復帰し、ゲームの再現を続行させる。また、ゲーム開始ボタンが押されると、再プレイ制御回

路9でこれを検知してキーパッド5側の複数のポートと送信用制御回路12側の出力ポートを短絡状態とし、ワイヤレスコントローラ4上の各キースイッチ5aの入力を送信用制御回路12側のポートに送出できるようにして前記(1)-1)の状態に復帰する。なお、ゲーム再生中のときは、キーパッド5側の複数のポートと出力ポートとは短絡状態にはなっていない。

【0015】

(他の実施例)

以上の実施例においては、再プレイ手段が、図1(a)のワイヤレスコントローラ4側に組込まれた事例を示したが、本考案は必ずしもこれのみに限定されることなく、例えば図3(b)に示すように、アダプタ3A側に組込んでも差支えない。この場合のワイヤレスコントローラ4A側の回路は同図(a)に示すようになる。図3において、前記図2におけると同一(相当)構成要素は同一符号で表わし、個々の重複説明は省略する。また動作についても、前記第1の実施例に準ずる。

【0016】

また、再プレイ制御回路9は、送信用または受信用制御回路12または14を兼ねるよう一体化構成としても差支えない。

さらにまた、ワイヤレス化の無線通信媒体は電波ではなく赤外線であってもよく、またコントローラ4の状態入力、前記キースイッチ5aのみに限定されず、例えばジョイスティックやトラックボールあるいはマウス等の変化量入力装置であっても差支えないことはもちろんである。

【0017】

【考案の効果】

以上、説明したように、この考案のワイヤレスコントローラを利用することにより、ゲーム終了後、ゲームなかの操作内容を再現して、そのゲーム中のどの操作が失敗の原因であったから復習することができ、また再プレイの途中からゲームを続行することができるようになったため、極めて便利となり、ゲーム操作の早期の上達にも寄与し得る。

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CLAIMS

[Utility model registration claim]

[Claim 1] The wireless controller which consists of a game status input means and the wireless transmitting means of the input, And it sets to the game equipment which consisted of adapters which consist of the interface circuitry for sending out the wireless receiving means of said input, and this receiving input as an image and a sound signal on a monitor through game equipment. While having a storage means for memorizing serially the signal inputted into said game status input means The wireless controller characterized by having a re-play initiation means for reproducing said memorized signal and enabling continuation of a game from the middle of this re-play after game termination.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001]

[Industrial Application]

This design is related with a wireless controller, especially the wireless controller of TV-game equipment.

[0002]

[Description of the Prior Art]

In recent years, the so-called TV-game equipments (or and omitting family computer etc.) which use a television receiver for home use etc. as a monitor have spread. [computer game] Although the controller of this conventional kind of game equipment has the common thing of a cable type When actually performing game actuation, the distance of an operator and the monitor display for games, such as television, is restrained by cable (or code) die length. Become hard to see or moreover, a cable becomes obstructive and settlement is inconvenient also in the case of the storage at the time of un-using it — etc. — since there is troublesomeness, the wireless-ized proposal according these to wireless is indicated by JP,63-82688,A, JP,62-14527,U, etc.

[0003]

[Problem(s) to be Solved by the Device]

When enjoying a game with this kind of TV-game equipment, generally, usually failure of the game of how often is experienced and it is not rare to hold the demand which wants to review which actuation after game termination and in that game caused failure.

However, for example, in said example equipment of a citation, there is nothing that has the function which reproduces the contents of actuation in a game after game termination, and it was not able to review it to it other than storage of an operator. Moreover, if a game goes wrong in a shooting game etc. especially, a game must be redone from the start in many cases, and it is also very troublesome, and a victory with a feeling of impatience.

[0004]

This design was made in view of the above aspects of affairs, and aims at offer of the wireless controller which can reproduce the contents of actuation in a game, and has the function which can continue a game from the middle of that re-play after game termination.

[0005]

[Means for Solving the Problem]

For this reason, the wireless controller which consists of a game status input means and the wireless transmitting means of that input in this design, And it sets to the game equipment which consisted of adapters which consist of the interface circuitry for sending out the wireless receiving means of said input, and this receiving input as an image and a sound signal on a monitor through game equipment. While having a storage means for memorizing serially the signal inputted into said game status input means It is going to attain the aforementioned purpose by reproducing said memorized signal after game termination, and carrying out the method configuration of **** of the re-play initiation means for enabling continuation of a game from the middle of this re-play.

[0006]

[Function]

By the above wireless controller configurations of this design, since the contents of actuation in a

game are serially saved in memory, the contents can be reproduced and the failure cause in a game etc. can be reviewed, and it can continue a game from while being a re-play.

[0007]

[Example]

Below, this design is explained based on an example. The basic block diagram of one example of the game equipment which equipped drawing 1 with the wireless controller concerning this design is shown.

(Configuration)

The monitor of an image and voice, such as a television set into which, as for 1, this kind of TV-game equipment is inputted into, and, as for 2, a signal is inputted from this game equipment 1, and 3 are the adapters equipped with the wireless receiving circuit (only that antenna 15a is shown) for the game condition input from the wireless controller 4. The wireless controller 4 has the keypad 5 equipped with the key switch as a game status input means etc., and has a general basic configuration which turns said condition input to said adapter 3 by the built-in wireless sending circuit (only the antenna 13a is shown), and is transmitted.

[0008]

The description of this example by forming the re-play carbon button 6 and the game failure carbon button 7 in said wireless controller 4, and pushing the re-play carbon button 6 after game termination By memorizing serially the location which went wrong into the game, if the actuation keying signal inputted by the keypad 5 into the game is serially sent out to game equipment 1 and the game failure carbon button 7 is pushed It is in the thing of the location which went wrong constituted so that it could continue a game from this side for a while in the middle of a re-play.

[0009]

each concerning this re-play function to drawing 2 (a) and (b) — the wireless controller 4 and each circuitry block diagram of an adapter 3 are shown.

the (a) Fig. — setting — 5a — for time amount count circuits, such as a timer, and 11, memory and 12 are [two or more key switches of a keypad 5, and 9 / a re-play control circuit and 10 / a wireless sending circuit and 13a of the control circuit for transmission and 13] the antenna. [which shows the wireless controller 4] Moreover, in the (b) Fig., 14 shows the control line for a wireless receiving circuit and 15a to connect with that antenna, and for 16 connect this adapter 3 to game equipment 1 in the control circuit for reception, and 15. [which shows an adapter 3]

[0010]

(Actuation)

Next, the operating sequence of this re-play equipment is explained according to the partition under (1) game and (2) game playback.

(1) inside of a game if the game initiation carbon button which is not illustrated [of the 1 wireless controller 4] is pushed — the re-play control circuit 9 — a counter circuit 10 — a time check — an initiation command signal is sent out and the port which manages game initiation of the control circuit 12 section for transmission in coincidence is turned on temporarily. A control circuit 9 has two or more ports, and is all the carbon buttons on a keypad 5 (key switch 5a).

It is made to have corresponded to each above-mentioned port. Moreover, each output port corresponding to these ports is arranged in the control circuit 12 side for transmission, respectively.

[0011]

2) said initiation command signal — a counter circuit 10 — the time — a time check — start a count.

3) Moreover, in the re-play control circuit 9, the operated carbon button of key switch 5a is supervised at any time among a game. It sees serially. ON/OFF state of two or more ports by the side of the keypad 5 of the present sample When it changes to ON/OFF state of the port in front of 1 sample, a demand signal is sent out to a counter circuit 20. ON/OFF state of a receipt and keypad 5 side two or more ports are symbolized for the counted value of time amount which came on the contrary from the counter circuit 10 (labeling), and a label and the counted value of time amount are written in memory 11. Moreover, if the game failure carbon button 7 is pushed when a game goes wrong, the information will also be written in memory 11 as a label. In addition, two or more ports and output ports by the side of a keypad 5 will be connected too hastily at the time in a game.

[0012]

(2) under game playback if the re-play carbon button 6 of the 1 wireless control 4 is pushed, at the same time the re-play control circuit 9 turns on temporarily the port which manages game initiation — the count circuit 10 — a time check — an initiation command signal is sent out. Then, in the control circuit 9, a demand signal is always sent out to a counter circuit 9, and the counted value of time amount which came on the contrary from the counter circuit 10 is supervised.

[0013]

2) the counter circuit 10 which received the count initiation command signal — the time — a time check — start a count.

3) Moreover, although ON/OFF state of two or more ports of the control circuit 12 section for transmission are reproduced from the label on memory 11 in the re-play control circuit 9 by the time amount counted value on memory 11, and the time amount counted value under current count If there are some which show that the game went wrong serially to the label after n sample, the port which manages a "pause" (halt of a game) among two or more ports by the side of the control circuit 12 for transmission is turned ON, and it will consider as an input waiting state at the same time it interrupts a game temporarily. moreover, the counter circuit 10 — a time check — a count halt command signal is sent out.

[0014]

4) Here, if the re-play carbon button 6 is pushed, it will return to said condition of 1 and reappearance of a game will be continued. Moreover, if a game initiation carbon button is pushed, as this is detected in the re-play control circuit 9, two or more ports by the side of a keypad 5 and the output port by the side of the control circuit 12 for transmission are made into a short circuit condition and the input of each key switch 5a on the wireless controller 4 can be sent out to the port by the side of the control circuit 12 for transmission, it will return to the condition of aforementioned (1)–1. In addition, two or more ports and output ports by the side of a keypad 5 are not in the short circuit condition at the time under game playback.

[0015]

(Other examples)

In the above example, although the re-play means showed the example included in the wireless controller 4 side of drawing 1 (a), although this design is included in the adapter 3A side as shown, for example in drawing 3 (b), it does not necessarily interfere, without being limited only to this. The circuit by the side of wireless controller 4A in this case comes to be shown in this drawing (a). In drawing 3, the same (considerable) component expresses with the same sign also in said drawing 2, and each duplication explanation is omitted. Moreover, also about actuation, it applies to said 1st example.

[0016]

Moreover, the re-play control circuit 9 does not interfere as a unification configuration so that it may serve both as the object for transmission, or the control circuits 12 or 14 for reception.

The radio medium of wireless-izing may be not an electric wave but infrared radiation, and, as for the status input of a controller 4, it is needless to say that it does not interfere even if it is not limited only to said key switch 5a, for example, is variation input units, such as a joy stick, and a trackball or a mouse, further again.

[0017]

[Effect of the Device]

As mentioned above, since the contents of actuation after game termination and in a game were reproduced, it could review since which actuation in that game caused failure, and it could continue the game from from by using the wireless controller of this design while having been a re-play as explained, it becomes very convenient and can contribute also to early progress of game actuation.

[Translation done.]

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TECHNICAL FIELD

[Industrial Application]

This design is related with a wireless controller, especially the wireless controller of TV-game equipment.

[0002]

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PRIOR ART

[Description of the Prior Art]

In recent years, the so-called TV-game equipments (or and omitting family computer etc.) which use a television receiver for home use etc. as a monitor have spread. [computer game] Although the controller of this conventional kind of game equipment has the common thing of a cable type When actually performing game actuation, the distance of an operator and the monitor display for games, such as television, is restrained by cable (or code) die length. Become hard to see or moreover, a cable becomes obstructive and settlement is inconvenient also in the case of the storage at the time of un-using it — etc. — since there is troublesomeness, the wireless-ized proposal according these to wireless is indicated by JP,63-82688,A, JP,62-14527,U, etc.

[0003]

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EFFECT OF THE INVENTION

[Effect of the Device]

As mentioned above, since the contents of actuation after game termination and in a game were reproduced, it could review since which actuation in that game caused failure, and it could continue the game from from by using the wireless controller of this design while having been a re-play as explained, it becomes very convenient and can contribute also to early progress of game actuation.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Device]

When enjoying a game with this kind of TV-game equipment, generally, usually failure of the game of how often is experienced and it is not rare to hold the demand which wants to review which actuation after game termination and in that game caused failure.

However, for example, in said example equipment of a citation, there is nothing that has the function which reproduces the contents of actuation in a game after game termination, and it was not able to review it to it other than storage of an operator. Moreover, if a game goes wrong in a shooting game etc. especially, a game must be redone from the start in many cases, and it is also very troublesome, and a victory with a feeling of impatience.

[0004]

This design was made in view of the above aspects of affairs, and aims at offer of the wireless controller which can reproduce the contents of actuation in a game, and has the function which can continue a game from the middle of that re-play after game termination.

[0005]

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MEANS

[Means for Solving the Problem]

For this reason, the wireless controller which consists of a game status input means and the wireless transmitting means of that input in this design, And it sets to the game equipment which consisted of adapters which consist of the interface circuitry for sending out the wireless receiving means of said input, and this receiving input as an image and a sound signal on a monitor through game equipment. While having a storage means for memorizing serially the signal inputted into said game status input means It is going to attain the aforementioned purpose by reproducing said memorized signal after game termination, and carrying out the method configuration of **** of the re-play initiation means for enabling continuation of a game from the middle of this re-play.

[0006]

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OPERATION

[Function]

By the above wireless controller configurations of this design, since the contents of actuation in a game are serially saved in memory, the contents can be reproduced and the failure cause in a game etc. can be reviewed, and it can continue a game from from while being a re-play.

[0007]

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EXAMPLE

[Example]

Below, this design is explained based on an example. The basic block diagram of one example of the game equipment which equipped drawing 1 with the wireless controller concerning this design is shown.

(Configuration)

The monitor of an image and voice, such as a television set into which, as for 1, this kind of TV-game equipment is inputted into, and, as for 2, a signal is inputted from this game equipment 1, and 3 are the adapters equipped with the wireless receiving circuit (only that antenna 15a is shown) for the game condition input from the wireless controller 4. The wireless controller 4 has the keypad 5 equipped with the key switch as a game status input means etc., and has a general basic configuration which turns said condition input to said adapter 3 by the built-in wireless sending circuit (only the antenna 13a is shown), and is transmitted.

[0008]

The description of this example by forming the re-play carbon button 6 and the game failure carbon button 7 in said wireless controller 4, and pushing the re-play carbon button 6 after game termination By memorizing serially the location which went wrong into the game, if the actuation keying signal inputted by the keypad 5 into the game is serially sent out to game equipment 1 and the game failure carbon button 7 is pushed It is in the thing of the location which went wrong constituted so that it could continue a game from this side for a while in the middle of a re-play.

[0009]

each concerning this re-play function to drawing 2 (a) and (b) — the wireless controller 4 and each circuitry block diagram of an adapter 3 are shown.

the (a) Fig. — setting — 5a — for time amount count circuits, such as a timer, and 11, memory and 12 are [two or more key switches of a keypad 5, and 9 / a re-play control circuit and 10 / a wireless sending circuit and 13a of the control circuit for transmission and 13] the antenna. [which shows the wireless controller 4] Moreover, in the (b) Fig., 14 shows the control line for a wireless receiving circuit and 15a to connect with that antenna, and for 16 connect this adapter 3 to game equipment 1 in the control circuit for reception, and 15. [which shows an adapter 3]

[0010]

(Actuation)

Next, the operating sequence of this re-play equipment is explained according to the partition under (1) game and (2) game playback.

(1) inside of a game if the game initiation carbon button which is not illustrated [of the 1 wireless controller 4] is pushed — the re-play control circuit 9 — a counter circuit 10 — a time check — an initiation command signal is sent out and the port which manages game initiation of the control circuit 12 section for transmission in coincidence is turned on temporarily. A control circuit 9 has two or more ports, and is all the carbon buttons on a keypad 5 (key switch 5a).

It is made to have corresponded to each above-mentioned port. Moreover, each output port corresponding to these ports is arranged in the control circuit 12 side for transmission, respectively.

[0011]

2) said initiation command signal — a counter circuit 10 — the time — a time check — start a count.

3) Moreover, in the re-play control circuit 9, the operated carbon button of key switch 5a is supervised at any time among a game. It sees serially. ON/OFF state of two or more ports by the side of the keypad 5 of the present sample. When it changes to ON/OFF state of the port in front of 1 sample, a demand signal is sent out to a counter circuit 20. ON/OFF state of a receipt and keypad 5 side two or more ports are symbolized for the counted value of time amount which came on the contrary from the counter circuit 10 (labeling), and a label and the counted value of time amount are written in memory 11. Moreover, if the game failure carbon button 7 is pushed when a game goes wrong, the information will also be written in memory 11 as a label. In addition, two or more ports and output ports by the side of a keypad 5 will be connected too hastily at the time in a game.

[0012]

(2) under game playback if the re-play carbon button 6 of the 1 wireless control 4 is pushed, at the same time the re-play control circuit 9 turns on temporarily the port which manages game initiation — the count circuit 10 — a time check — an initiation command signal is sent out. Then, in the control circuit 9, a demand signal is always sent out to a counter circuit 9, and the counted value of time amount which came on the contrary from the counter circuit 10 is supervised.

[0013]

2) the counter circuit 10 which received the count initiation command signal — the time — a time check — start a count.

3) Moreover, although ON/OFF state of two or more ports of the control circuit 12 section for transmission are reproduced from the label on memory 11 in the re-play control circuit 9 by the time amount counted value on memory 11, and the time amount counted value under current count. If there are some which show that the game went wrong serially to the label after n sample, the port which manages a "pause" (halt of a game) among two or more ports by the side of the control circuit 12 for transmission is turned ON, and it will consider as an input waiting state at the same time it interrupts a game temporarily. moreover, the counter circuit 10 — a time check — a count halt command signal is sent out.

[0014]

4) Here, if the re-play carbon button 6 is pushed, it will return to said condition of 1 and reappearance of a game will be continued. Moreover, if a game initiation carbon button is pushed, as this is detected in the re-play control circuit 9, two or more ports by the side of a keypad 5 and the output port by the side of the control circuit 12 for transmission are made into a short circuit condition and the input of each key switch 5a on the wireless controller 4 can be sent out to the port by the side of the control circuit 12 for transmission, it will return to the condition of aforementioned (1)-1. In addition, two or more ports and output ports by the side of a keypad 5 are not in the short circuit condition at the time under game playback.

[0015]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The basic block diagram of game equipment equipped with the wireless controller of one example

[Drawing 2] An example of the circuitry block diagram of a re-play function

[Drawing 3] Other example Figs. of drawing 2

[Description of Notations]

1 Game Equipment

2 Monitor

3 3A Adapter

4 4A Wireless controller

5 Keypad

6 Re-Play Carbon Button

7 Game Failure Carbon Button

9 Re-Play Control Circuit

10 Counter Circuit

11 Memory

13/15 Wireless Transmission/receiving circuit

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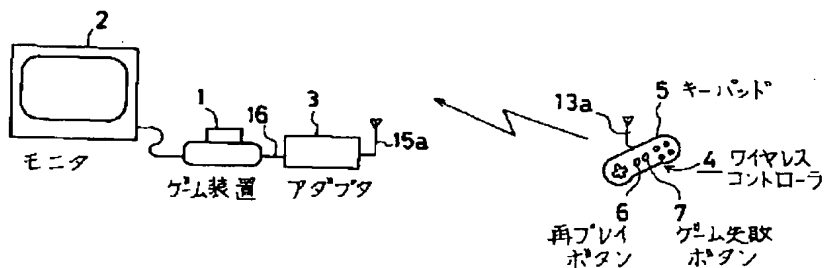
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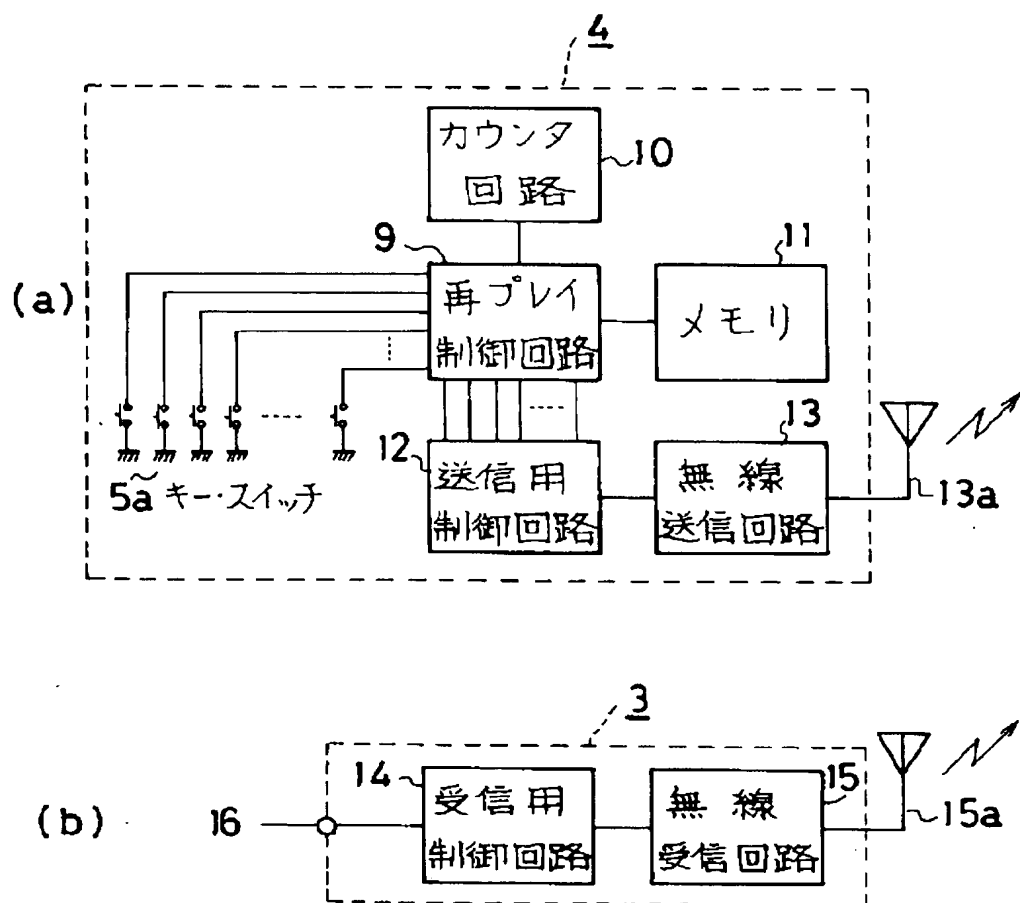
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DRAWINGS

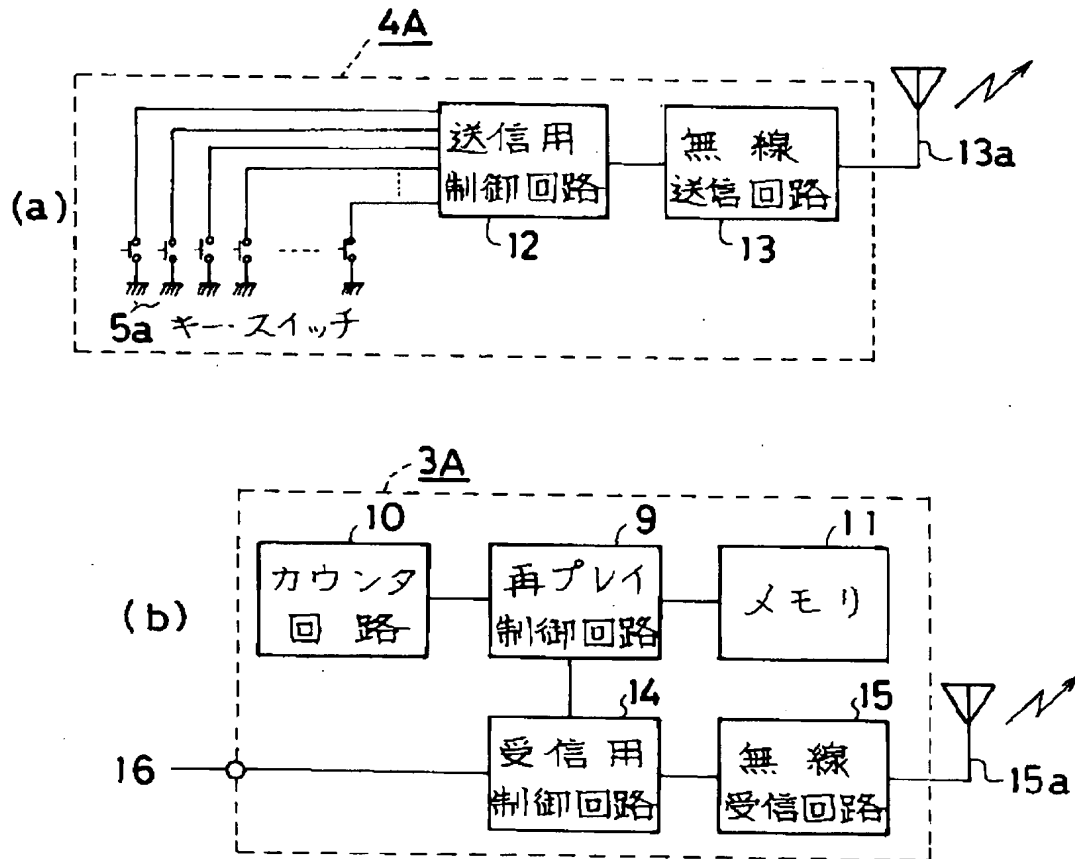
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]